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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,128	06/23/2006	Philip Head	608-482	8109
23117 7590 07/28/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
FULLER, ROBERT EDWARD				
ART UNIT		PAPER NUMBER		
3676				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/584,128

**Applicant(s)**

HEAD ET AL.

**Examiner**

ROBERT E. FULLER

**Art Unit**

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's submission, filed May 12, 2008, has been carefully considered. Examiner maintains the rejection set forth in the previous office action, under 35 U.S.C. 103.

### ***Drawings***

2. The drawings are objected to because the section view labels in figures 11, 12, 14, 25, 27, and 29 are improper. Section views should be labeled with Roman or Arabic numerals rather than letters. See 37 CFR 1.84 (h) (3). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Simpson (US 2002/0079106).

Simpson discloses an expandable tubular element (200, 202) suitable for forming connections by a method a claimed in claim 11 having protuberances (206) on a part of its surface adjacent at least one end thereof which have been formed by plasma spraying a hard angular material. Examiner notes that the method by which the protuberances are applied to the surface of the tubular is immaterial, since claim 18 is an apparatus claim. Therefore, the plasma spraying limitation is simply a product-by-process limitation and Simpson anticipates claim 18.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 11-14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson (US 2002/0079106) in view of Schroder et al. (US 6,171,351).

With regard to claims 11-13, Simpson discloses a method for connecting a portion of an external surface of a first tubular element (200) with a portion of an internal surface of a second tubular element (202) comprising: at least partially coating said portion of one or both of said external surface and said internal surface and form protuberances (206) on one or both of said portion of said external surface and said portion of said internal surface (see paragraph 0066); locating a portion of the external surface of the first tubular element within a portion of the internal surface of the second tubular element (see Figure 10A), wherein protuberances are present on one or both of said portion of said external surface of said first tubular element and said portion of said internal surface of said second tubular element; expanding the portion of the external surface of the first tubular element and/or compressing the portion of the internal surface of the second tubular element to form a connection resulting from the interference between the external surface of the portion of the first tubular element and

the internal surface of the portion of the second tubular element and protuberances present on one or both of said portion of said external surface of said first tubular element and said portion of said internal surface of said second tubular element.

Simpson fails to disclose applying the protuberances by plasma spraying through a mask.

Schroder teaches a method of applying protuberances (21-25) to a metal workpiece (17) by plasma spraying through a foraminous mask (20).

All of the claimed elements, i.e. 1) connecting tubulars by coating an interface with protuberances, and expanding the interface, and 2) plasma spraying protuberances onto a surface through a mask, were known in the art at the time of invention. The only difference is combining the two methods by plasma spraying protuberances through a mask onto a surface of a pipe to be connected to another pipe. Therefore, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the plasma spraying method taught by Schroder to have applied the protuberances of Simpson, since this would have yielded the predictable result of applying protuberances onto a connection surface in a more orderly manner determined by the distribution of holes in the mask.

With regard to claim 14, Simpson indicates that not all of the connection surface is covered with protuberances (see the last part of paragraph 0066). Therefore, some part of the connection interface forms a metal-to-metal seal.

With regard to claim 16, Simpson discloses carbide granules that become embedded in the surfaces as the connection is expanded.

Regarding claim 17, Simpson's method further involves lowering the pipe string into the borehole and subsequently radially expanding the pipe string downhole.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson in view of Schroder et al. as applied to claim 11 above, and further in view of Metcalfe (US 7,225,523).

Simpson in view of Schroder et al., discloses all of the limitations of the above claim(s) except for the connection between the two tubulars involving a male/male coupling and/or a female/female connection that is expandable.

Metcalfe discloses a tubular connection system that is usable in a wellbore and is expandable.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the connection of Simpson in view of Schroder et al. to include a male/male coupling and/or a female/female coupling as taught in by Metcalfe in order to have used a coupling system that expanded in a compact manner and thus created a reliable expansion of the tubulars without forming any internal restrictions (1:45-50 and 2:30-35).

8. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson in view of Metcalfe.

Simpson discloses all of the limitations of the above claim(s) except for the connection between the two tubulars involving a male/male coupling and/or a female/female connection that is expandable.

Metcalfe discloses a tubular connection system that is usable in a wellbore and is expandable.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the connection of Simpson to include a male/male coupling and/or a female/female coupling as taught in by Metcalfe in order to have used a coupling system that expanded in a compact manner and thus created a reliable expansion of the tubulars without forming any internal restrictions (1:45-50 and 2:30-35).

#### ***Response to Arguments***

9. Applicant's arguments filed May 12, 2008 have been fully considered but they are not persuasive. Applicant has argued that Simpson and Schroder cannot be combined because Simpson does not suggest using a mask, and because Schroder does not teach a method of connecting tubulars.

Examiner respectfully traverses applicant's argument. Simpson teaches a method of connecting tubulars using protuberances. Schroder merely teaches a method of applying protuberances to a surface (by plasma spraying through a mask). Schroder does not need to apply the protuberances for the exact same reason as Simpson. Schroder is only brought in to show that the plasma spraying method was well known at the time of invention. Furthermore, the fact that Simpson does not suggest a mask is irrelevant since Schroder provides that teaching, and because KSR forecloses the argument that a *specific* teaching, suggestion, or motivation is required to support a finding of obviousness. See the recent Board decision *Ex parte Smith*, --



USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007) (citing *KSR*, 82

USPQ2d at 1396) (available at

<http://www.uspto.gov/web/offices/dcom/bpai/prec/fd071925.pdf>).

### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ROBERT E. FULLER** whose telephone number is (571)272-0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3676

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer H Gay/  
Supervisory Patent Examiner, Art  
Unit 3676

07/24/2008

REF